4 November 2004

Ms. Marlene H. Dortch
Secretary
Office of the Secretary
Federal Communications Commission
445 12th Street, S.W. Room TW-A325
Washington DC 20554

Re: ***Ex Parte* Presentation**
In the Matter of IP-Enabled Services, WC Docket No. 04-36

Dear Ms. Dortch:

This is to inform you that Anthony M. Rutkowski, VP of Regulatory Affairs, and Brian Cute, Director of Government Relations of VeriSign Inc, met on 2 November 2004 at Commission headquarters with Office of Engineering and Technology staff members Julius Knapp, Jeffery Goldthorp, Geraldine Matise, and Rodney Small , and Wireline Competition Bureau staff member Michael Goldstein.

The purpose of this meeting was to provide an overview of new developments relating to Next Generation Networks IP-enabled signalling and directory services in general and Internet Registry Information Service (IRIS) protocol developments in particular. The attached slides formed the basis of dialogue, and convey the substance of what was discussed.

VeriSign is a globally recognized leader in providing an array of large-scale, ultra-high availability infrastructure support capabilities for traditional voice telecommunications, Internet, security, and financial transaction services to providers and consumers through its various divisions in the U.S. and worldwide. As part of these commercial infrastructure support services, it provides wireless, wireline, cable, and IP-enabled signalling and directory services, and participates in or leads several of the related technology, industry, and standards activities.

VeriSign looks forward to continued collaboration with the Commission in considering matters relating to the subject rulemaking proceeding and creating an appropriate IP-Enabled Services regulatory framework.

Pursuant to the Commission's rules, this *ex parte* letter together with the slides are being filed via the Commission's Electronic Comment Filing System for inclusion in the public record of the above-referenced proceeding.

Respectfully submitted,

/s/

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cc: Julius Knapp
Jeffery Goldthorp
Geraldine Matise
Rodney Small
Michael Goldstein

FCC Ex Parte Presentation
2 November 2004
IP-Enable Services Framework and CALEA
Dockets 04-36, 04-295

The Directory as critical intelligent infrastructure for NGN protection, NS/EP, and other national needs

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The problem with open network infrastructure

by Peter Steiner
New Yorker
5 July 1993

Why is The Directory important?

- Without a secure, authenticated, common global directory structure for our public communication networks
  - They will be substantially vulnerable to disruption and fraud
  - Cannot establish who is responsible for services or identifiers
  - Most national public policy needs cannot be supported
    - critical infrastructure protection
    - public safety needs
    - law enforcement support
    - fraud prevention
    - restoration after failures
    - call prioritization during emergencies
    - competition
    - consumer protection against unwanted intrusions (e.g., SPAM)
    - privacy and data protection
    - disability assistance
  - With Next Generation Network integration now contemplated, the time to act is now

Help is on the way: IRIS - the Internet Registry Information Service

- Designed to provide critical “Directory” services for IP-Enabled Next Generation Networks
  - Equivalent of SS7 Intelligent Network databases in the telecom environment (LIDB, CNAM, etc)
- Completely open suite of standards developed in Internet Engineering Task Force (IETF)
- Universal, internationalized text based protocol designed to allow registries of Internet resources
  - Provides flexible query and result information services about any Internet “resource”
  - provides a framework for authentication, structured data, entity references and search continuations
  - Imposes no constraints on distribution of the data nor means of transport
  - XML based for compatibility, flexibility, extensibility, and interoperability

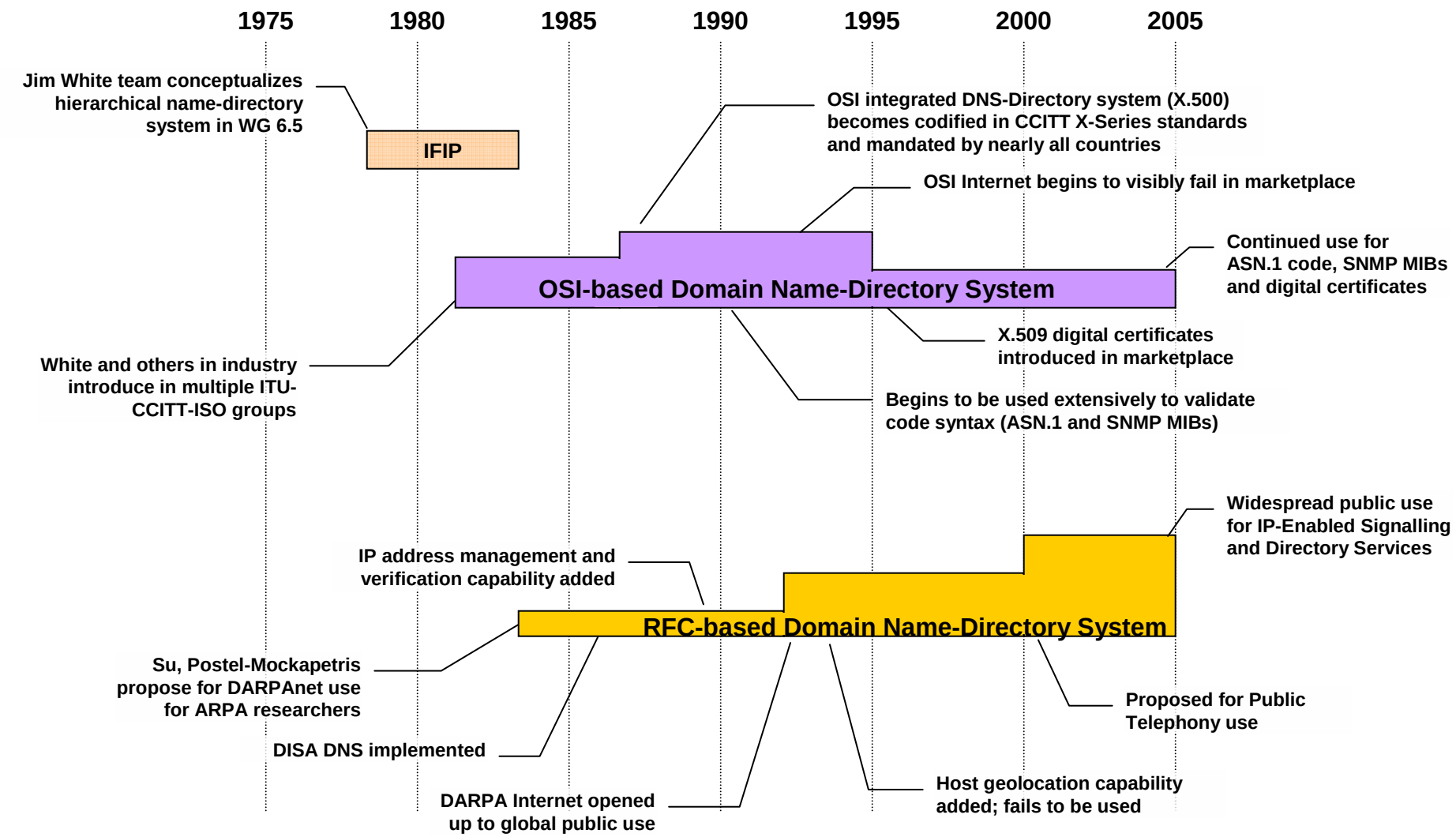
What is IRIS designed to provide?

- Queries by network/service address (IP-address, telephone number, Internet domain name, OSI domain name, eMail address, messenger address, object product code,…) to show
  - What user is associated with the identifier
  - Related service providers and contact information
  - Related computer host information
  - Optional attributes such as
    - location of the user
    - Emergency medical treatment information
    - Disability information
    - Do not call information
    - Priority access information during or after an emergency
    - Intercarrier authentication and compensation information
    - Tax jurisdiction information
- Legacy service gateway information
  - Caller-ID and calling name
  - Fraud prevention verifications

The Directory as Critical Infrastructure

- In PSTN and public mobile networks
  - the Directory is tightly bound to the SS7 signaling system, mandated, and protected
- When public-scale open networks (OSI Internet) were first contemplated in late 70s in IFIP-CCITT
  - The Directory was created as core infrastructure with tight bindings to signalling systems and code
- The prevailing formerly private DARPA Internet
  - did not need a core directory with tight bindings,
  - had some similar capabilities (NICname/WHOIS for host names and IP addresses)
- The DARPA Internet found its way into the public infrastructure and subordinated the OSI Internet
- Significant security, critical infrastructure, and criminal problems have emerged and are rapidly scaling
- Next Generation Networks (NGN) contemplate integrating the (formerly) DARPA Internet with the PSTN and mobile network infrastructure
- The DARPA Internet Directory omission problem
  - must be rectified globally

History of Internet Signalling-Directory Systems



Signalling-Directory Systems Compared

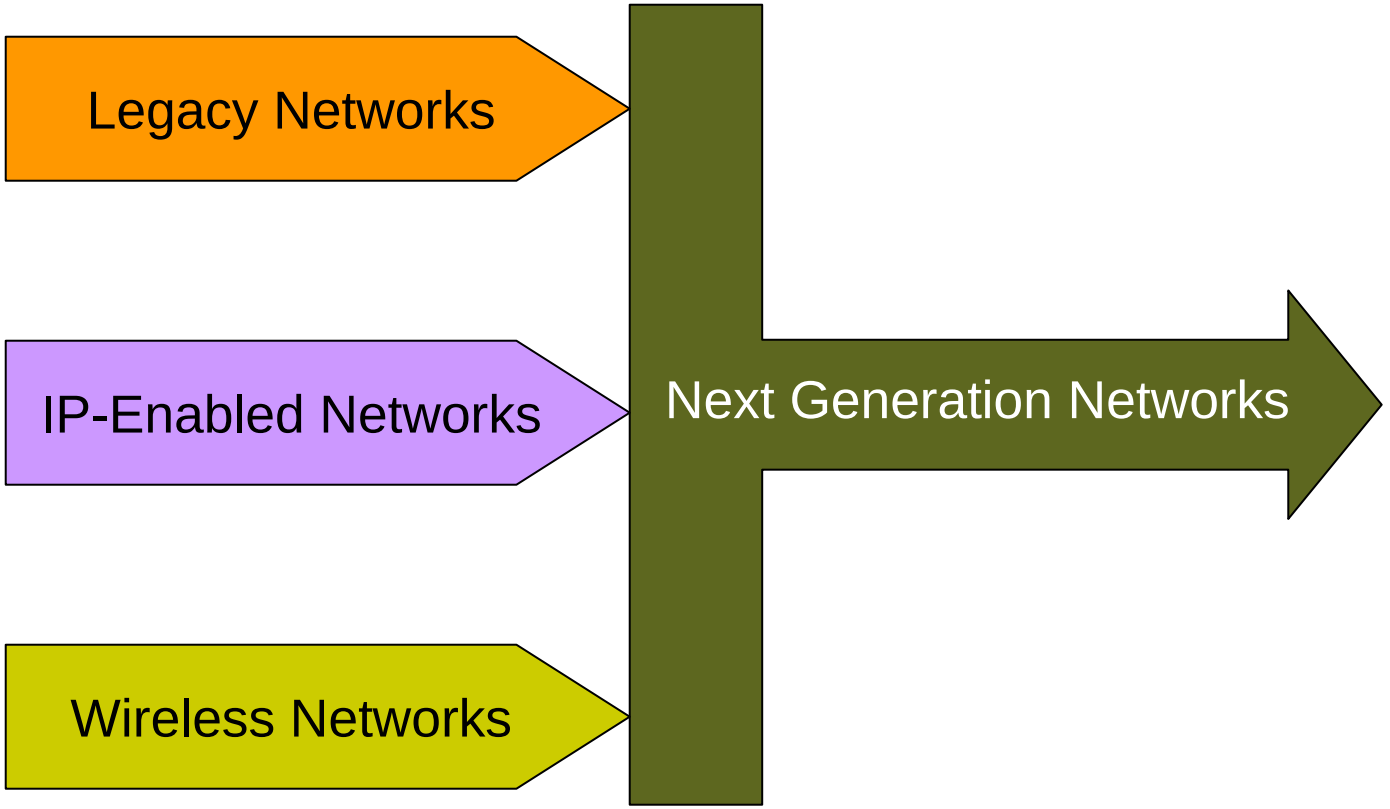
OSI Internet

- Built from outset for secure global public infrastructure
- Substantial operational and administrative overhead
  - Ahead of the technology curve
  - Disincented developer community
  - Rigid, complex naming and expressions; acquisition was cumbersome and costly
- No scaleable distributed identifier resolution system ever implemented
  - No BIND code developed
- Tightly integrated, secure, and well authenticated Directory system
  - Originally mandated by regulatory authorities
  - Substantial authentication
  - Support for digital certificates
  - Bindings among all global public network service identifiers integrated
  - Some gateway and XML-based translation capabilities added

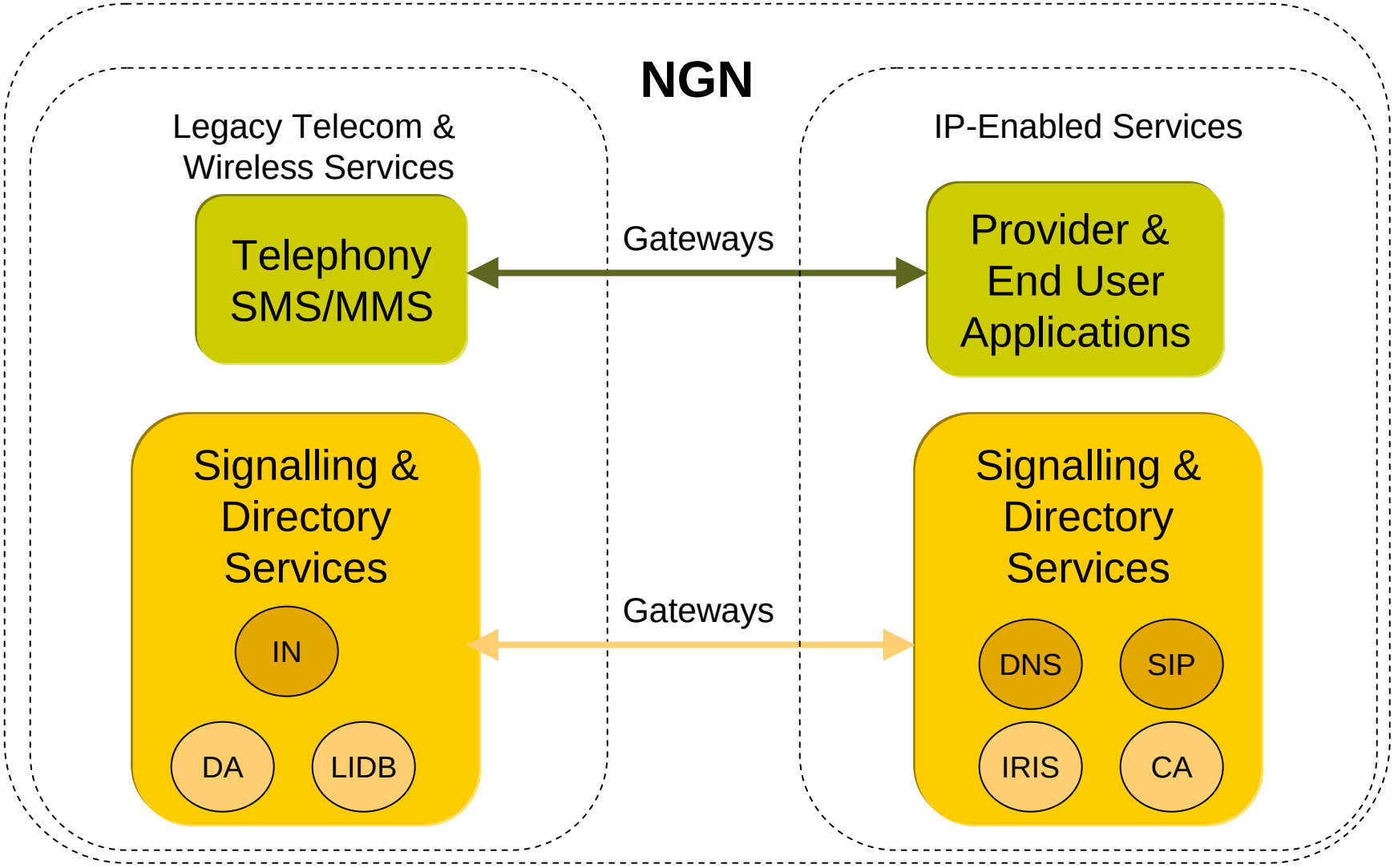
DARPA Internet

- Built originally for closed DOD-NSF R&D infrastructure
- Minimal operational and administrative overhead
  - Matched available technology
  - Incented developer community
  - Flexible, simple naming and expressions: acquisition often fast and cheap
- Elegant scaleable distributed identifier resolution system implemented
  - BIND code developed, freely distributed
- Loosely integrated, insecure, and non-authenticated Directory system
  - Now being considered by regulatory authorities
  - Usually little authentication
  - Potential support for digital certificates
  - Bindings with public telecom network numbers being considered
  - Next Generation XML-based Directory capability just initially developed - IRIS

The looming NGN factor: convergence



NGN Interoperability Requirements

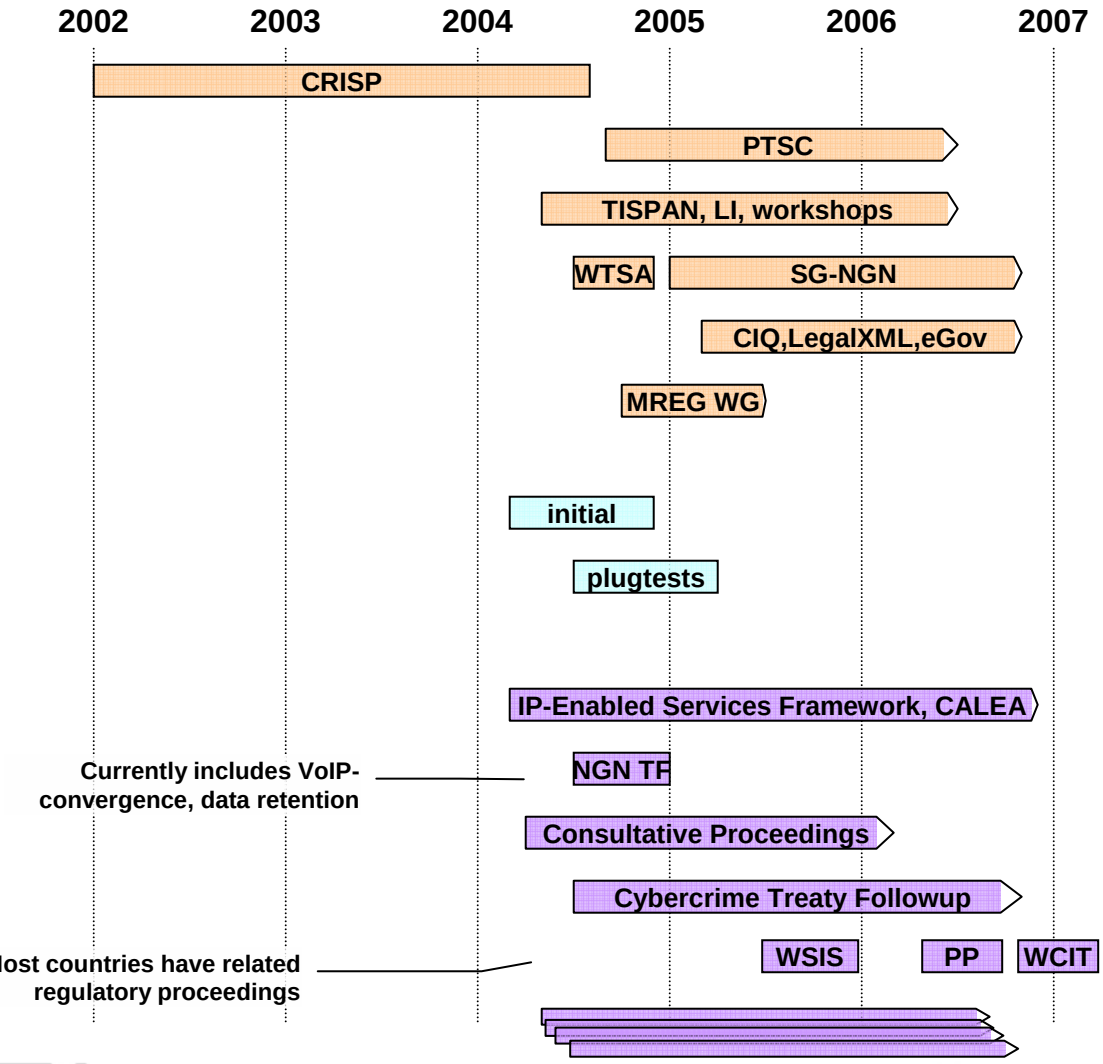


The IRIS Roadmap

Standards actions
- IETF
- ATIS
- ETSI
- ITU-T
- OASIS
- Messenger adhoc

Implementations
- industry
- ETSI

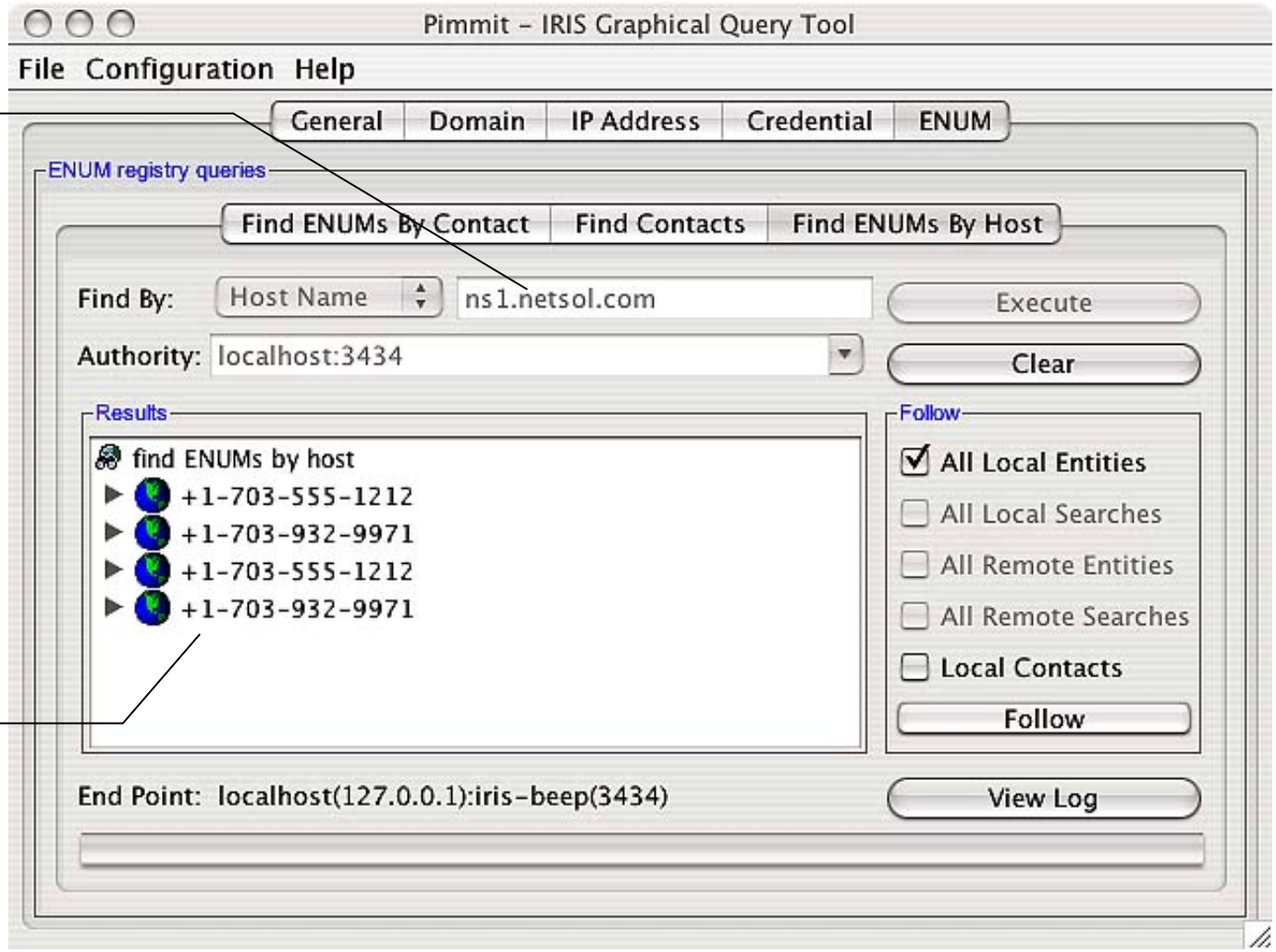
Government actions
- FCC
- NSTAC
- EC
- CoE
- ITU
- Other



Query for all ENUM services hosted at a server

Enter server host name

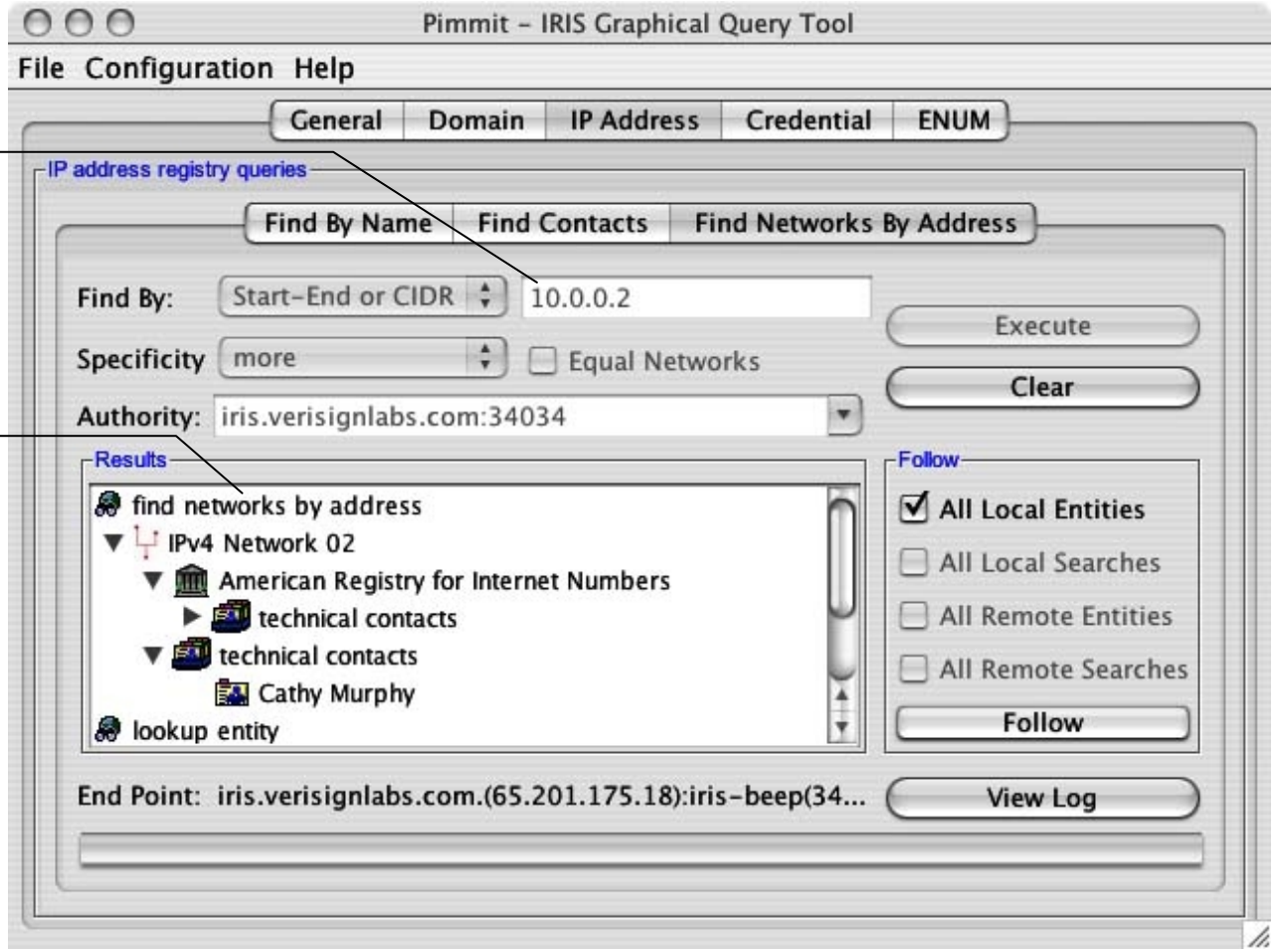
Get all ENUM E.164 numbers hosted on the server



Query for information about an IP address

Enter IP Address

Get all ownership and responsibility information associated with IP address



IRIS Status and Planned Development

- Running code exists for initial specifications – see http://iris.verisignlabs.com

Conclusion

"On the Internet, nobody knows you're a dog."

"With IRIS, everyone knows I'm a dog"